

Pflügers Archiv

European Journal of Physiology

Vol. 359 1975

Editors

J. Th. F. Boeles, Amsterdam · H. Bornschein, Wien
V. Capraro, Milano · P. Deetjen, Innsbruck
E. Gerlach, München · E. Gutmann, Praha
H. Hensel, Marburg · K. Hierholzer, Berlin
A. Jost, Paris · K. Kramer, München
N. A. Lassen, Copenhagen
F. Morel, Paris · G. Moruzzi, Pisa
O. Pompeiano, Pisa · J. M. Posternak, Genève
G. Semenza, Zürich · R. Stämpfli, Homburg (Saar)
R. Thauer, Bad Nauheim-Gießen
W. Trautwein, Homburg (Saar)
E. Wetterer, Erlangen · W. G. Zijlstra, Groningen

Managing Editor

F. Kreuzer, Nijmegen



Springer-Verlag Berlin · Heidelberg · New York

Pflügers Archiv · European Journal of Physiology

Founded in 1868 as „Pflügers Archiv für die gesamte Physiologie des Menschen und der Tiere“ by *E. F. W. Pflüger*. Edited by *M. Verworn*, *E. Abderhalden*, *A. Bethe*, *R. Höber*, *A. v. Muralt*, *H. Rein* et al.

Published: Vol. 1—29 (1876) Bonn, Cohen und Sohn; Vol. 30—92 (1901) Bonn, E. Strauß; Vol. 93—170 (1917) Bonn, M. Hager; since Vol. 171 (1918) Berlin, Springer.

Since 1920 Pflügers Archiv has included: „Archiv für Physiologie“ (Archiv für Anatomie und Physiologie, Physiologische Abteilung). Founded and edited by Johannes Müller, E. du Bois-Reymond, W. v. Waldeyer-Hartz et al. 1877—1914. Leipzig, Veit und Co., since 1915, Berlin, Vereinigung Wissenschaftlicher Verleger, afterwards Walter de Gruyter.

Alle Rechte, einschließlich das der Übersetzung in fremde Sprachen und das der fotomechanischen Wiedergabe oder einer sonstigen Vervielfältigung, auch in Mikroform, vorbehalten. Jedoch wird gewerblichen Unternehmen für den innerbetrieblichen Gebrauch nach Maßgabe des zwischen dem Börsenverein des Deutschen Buchhandels e.V. und dem Bundesverband der Deutschen Industrie abgeschlossenen Rahmenabkommens die Anfertigung einer fotomechanischen Vervielfältigung gestattet. Wenn für diese Zeitschrift kein Pauschalabkommen mit dem Verlag vereinbart worden ist, ist eine Wertmarke im Betrage von DM 0,40 pro Seite zu verwenden. *Der Verlag läßt diese Beträge den Autorenverbänden zufließen.*

Die Wiedergabe von Gebrauchsnamen, Handelsnamen, Warenbezeichnungen usw. in dieser Zeitschrift berechtigt auch ohne besondere Kennzeichnung nicht zu der Annahme, daß solche Namen im Sinne der Warenzeichen- und Markenschutz-Gesetzgebung als frei zu betrachten wären und daher von jedermann benutzt werden dürften.

The exclusive copyright for all languages and countries, including the right for photomechanical and any other reproductions, also in microform, is transferred to the publisher.

The use of registered names, trademarks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

Springer-Verlag / Berlin · Heidelberg · New York

Printers: Wiesbadener Graphische Betriebe GmbH, Wiesbaden

Printed in Germany — © by Springer-Verlag, Berlin · Heidelberg 1975

Inhalt/Contents

Abati, A., s. Sturkie, P. D.	127
Aberkane, H., s. Lecompte, F., <i>et al.</i>	147
Abu-Murad, C., s. Hajjar, J. J., <i>et al.</i>	57
Ackermann, U., Pearce, J. W.: On the Role of the Interstitial Volume in the Response of the Rat to Blood Volume Expansion	97
Azoulay, E., s. Lecompte, F., <i>et al.</i>	147
von Baeyer, H.: Glucose Transport in the Short Loop of Henle of the Rat Kidney.	317
Baroffio, L. C., s. Pelosi, V., <i>et al.</i>	273
Bass, A., Vondra, K., Rath, R., Viték, V., Havránek, T.: Metabolic Changes in the Quadriceps Femoris Muscle of Obese People. Enzyme Activity Patterns of Energy-Supplying Metabolism	325
Baverel, G., Martin, M., Ferrier, B., Pellet, M.: Intrarenal Distribution of Citrate in the Dog during Antidiuresis and Diuresis	177
Bernards, J. A., s. Smolders, F. D. J., <i>et al.</i>	157
Van Breemen, C., Wuytack, F., Casteels, R.: Stimulation of ^{45}Ca Efflux from Smooth Muscle Cells by Metabolic Inhibition and High K Depolarization	183
Van Breemen, C., s. Casteels, R.	197
Campos Carles, A., Kawashiro, T., Piiper, J.: Solubility of Various Inert Gases in Rat Skeletal Muscle	209
Campos Carles, A., s. Kawashiro, T., <i>et al.</i>	219
Cappelli, V., s. Minelli, R., <i>et al.</i>	69
Carpenter, D., s. Pierau, F.-K., <i>et al.</i>	349
Casteels, R., van Breemen, C.: Active and Passive Ca^{2+} Fluxes Across Cell Membranes of the Guinea-Pig <i>Taenia coli</i>	197
Casteels, R., s. van Breemen, C., <i>et al.</i>	183
Coote, J. H., Macleod, V. H.: The Spinal Route of Sympatho-Inhibitory Pathways Descending from the Medulla Oblongata	335
Davis, J. M., s. Morgan, T.	23
Decoodt, P., s. Lambert, P. P., <i>et al.</i>	1
DiMattio, J., Hochwald, G. M., Malhan, C., Wald, A.: Effects of Changes in Serum Osmolarity on Bulk Flow of Fluid into Cerebral Ventricles and on Brain Water Content.	253
Dionigi, R., s. Minelli, R., <i>et al.</i>	69
Du Bois, R., s. Lambert, P. P., <i>et al.</i>	1
Ferrier, B., s. Baverel, G., <i>et al.</i>	177
Folgering, H. Th., s. Smolders, F. D. J., <i>et al.</i>	157
Gassée, J. P., s. Lambert, P. P., <i>et al.</i>	1
Ghaem, A., s. Levy, B., <i>et al.</i>	137
Görke, K., Necker, R., Rautenberg, W.: Neurophysiological Investigation of Spinal Reflexes at Different Temperatures of the Spinal Cord in Birds and Reptiles	269
Greven, K., Hohorst, B.: Creep after Loading in Relaxed and Contracted (KCl or K_2SO_4 Depolarized) Smooth Muscle (<i>Taenia coli</i> of the Guinea Pig)	111
De Groat, W. C., Krier, J.: Preganglionic C-Fibres: A Major Component of the Sacral Autonomic Outflow to the Colon of the Cat	171
Gutsche, H.-U., s. Müller-Suur, R., <i>et al.</i>	33
Hajjar, J. J., Abu-Murad, C., Khuri, R. N., Nassar, R.: Effect on Mn^{2+} on Permeability Properties of Frog Skin	57
Havránek, T., s. Bass, A., <i>et al.</i>	325
Hensel, H., s. Konietzny, F.	265
Hierholzer, K., s. Müller-Suur, R., <i>et al.</i>	33
Hochwald, G. M., s. DiMattio, J., <i>et al.</i>	253
Hohorst, B., s. Greven, K.	111

Kawashiro, T., Campos Carles, A., Perry, S. F., Piiper, J.: Diffusivity of Various Inert Gases in Rat Skeletal Muscle	219
Kawashiro, T., Nüsse, W., Scheid, P.: Determination of Diffusivity of Oxygen and Carbon Dioxide in Respiring Tissue: Results in Rat Skeletal Muscle	231
Kawashiro, T., s. Campos Carles, A., <i>et al.</i>	209
Khuri, R. N., s. Hajjar, J. J., <i>et al.</i>	57
Konietzny, F., Hensel, H.: Warm Fiber Activity in Human Skin Nerves	265
Krier, J., s. de Groat, W. C.	171
Lambert, P. P., Du Bois, R., Decoodt, P., Gassée, J. P., Verniory, A.: Determination of Glomerular Intracapillary and Transcapillary Pressure Gradients from Sieving Data. II. A Physiological Study in the Normal Dog	1
Lecompte, F., Aberkane, H., Azoulay, E., Muffat-Joly, M., Pocidalo, J. J.: Blood Affinity for Oxygen in Experimental Hemorrhagic Shock with Metabolic Acidosis.	147
Leniger-Follert, E., Lübbers, D. W., Wrabetz, W.: Regulation of Local Tissue P_{O_2} of the Brain Cortex at Different Arterial O_2 Pressures	81
Levy, B., Ghaem, A., Verpillat, J. M., Martineaud, J. P.: Antagonistic Effects upon Cutaneous Circulation of Muscular Exercise and Exposure to a High Ambient Temperature	137
Longhini, E., s. Pelosi, V., <i>et al.</i>	273
Lübbers, D. W., s. Leniger-Follert, E., <i>et al.</i>	81
Lutz, J., Schulze, H.-G., Michael, U. F.: Calculation of O_2 Saturation and of Oxyhemoglobin Dissociation Curve for Different Species, Using a New Programmable Pocket Calculator	285
Macleod, V. H., s. Coote, J. H.	335
Malhan, C., s. DiMattio, J., <i>et al.</i>	253
Martin, M., s. Baverel, G., <i>et al.</i>	177
Martineaud, J. P., s. Levy, B., <i>et al.</i>	137
Michael, U. F., s. Lutz, J., <i>et al.</i>	285
Minelli, R., Reggiani, C., Dionigi, R., Cappelli, V.: Cardiac Muscle Models for Both Isotonic and Isometric Contractions	69
Morgan, T., Davis, J. M.: Renin Secretion at the Individual Nephron Level	23
Müller-Suur, R., Gutsche, H.-U., Samwer, K. F., Oelkers, W., Hierholzer, K.: Tubuloglomerular Feedback in Rat Kidneys of Different Renin Contents	33
Muffat-Joly, M., s. Lecompte, F., <i>et al.</i>	147
Nassar, R., s. Hajjar, J. J., <i>et al.</i>	57
Necker, R., s. Görke, K., <i>et al.</i>	269
Nüsse, W., s. Kawashiro, T., <i>et al.</i>	231
Oelkers, W., s. Müller-Suur, R., <i>et al.</i>	33
Pearce, J. W., s. Ackermann, U.	97
Pellet, M., s. Baverel, G., <i>et al.</i>	177
Pelosi, V., Baroffio, L. C., Vezzoli, F., Longhini, E.: Simple Parametrizations of Maximum Expiratory Flow-Volume Curves	273
Perry, S. F., s. Kawashiro, T., <i>et al.</i>	219
Pierau, F.-K., Torrey, P., Carpenter, D.: Effect of Ouabain and Potassium-Free Solution on Mammalian Thermosensitive Afferents in vitro	349
Piiper, J., s. Campos Carles, A., <i>et al.</i>	209
Piiper, J., s. Kawashiro, T., <i>et al.</i>	219
Pocidalo, J. J., s. Lecompte, F., <i>et al.</i>	147
Rath, R., s. Bass, A., <i>et al.</i>	325
Rautenberg, W., s. Görke, K., <i>et al.</i>	269
Reggiani, C., s. Minelli, R., <i>et al.</i>	69
Samwer, K. F., s. Müller-Suur, R., <i>et al.</i>	33
Scheid, P., s. Kawashiro, T., <i>et al.</i>	231
Schulze, H.-G., s. Lutz, J., <i>et al.</i>	285
Smolders, F. D. J., Folgering, H. Th., Bernards, J. A.: Ventilation Estimated from Efferent Phrenic Nerve Activity in the Paralysed Cat	157

Sturkie, P. D., Abati, A.: Blood Flow in Mesenteric, Hepatic Portal and Renal Portal Veins of Chickens	127
Torrey, P., s. Pierau, F.-K., <i>et al.</i>	349
Ulbricht, W., s. Wagner, H.-H.	297
Verniory, A., s. Lambert, P. P., <i>et al.</i>	1
Verpillat, J. M., s. Levy, B., <i>et al.</i>	137
Vezzoli, F., s. Pelosi, V., <i>et al.</i>	273
Vítek, V., s. Bass, A., <i>et al.</i>	325
Vondra, K., s. Bass, A., <i>et al.</i>	325
Wagner, H.-H., Ulbricht, W.: The Rates of Saxitoxin Action and of Saxitoxin-Tetrodotoxin Interaction at the Node of Ranvier	297
Wald, A., s. DiMattio, J., <i>et al.</i>	253
Wrabetz, W., s. Leniger-Follert, E., <i>et al.</i>	81
Wuytack, F., s. van Breemen, C., <i>et al.</i>	183

Indexed in Current Contents

Notes on Preparation of Illustrations

Selection of illustration material: In order to obtain the best results in reproduction, to avoid delays during production and hence unnecessary costs, we ask authors to note the following points when selecting and preparing illustration copy.

1. Half-tones (photographs, photomicrographs, X-rays, instrument traces etc.)

- Send only good, well-contrasted glossy prints of the original negative; prints should be trimmed at right angles; send contact copies of X-rays — if these are not available, the actual X-ray films.
- Mark or trim off marginal portions which are not required (at right angles, please).
- State scale of reduction, if any, with due allowance for the format of the printed page (print area).
- Group figures into whole-page plates; see that they match in the proposed scale of reduction.
- With X-rays, in particular, mark the significant portions on the back of the copy, or on a cover sheet.
- Enter inscriptions, marker lines etc. neatly and in the appropriate size, either on the photograph itself or on a cover sheet.

2. Line drawings

- State final size of illustration, with due allowance for print area.
- The ideal is for drawings to be twice the final size and executed in indelible black ink.

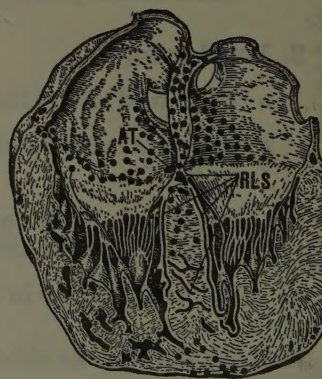
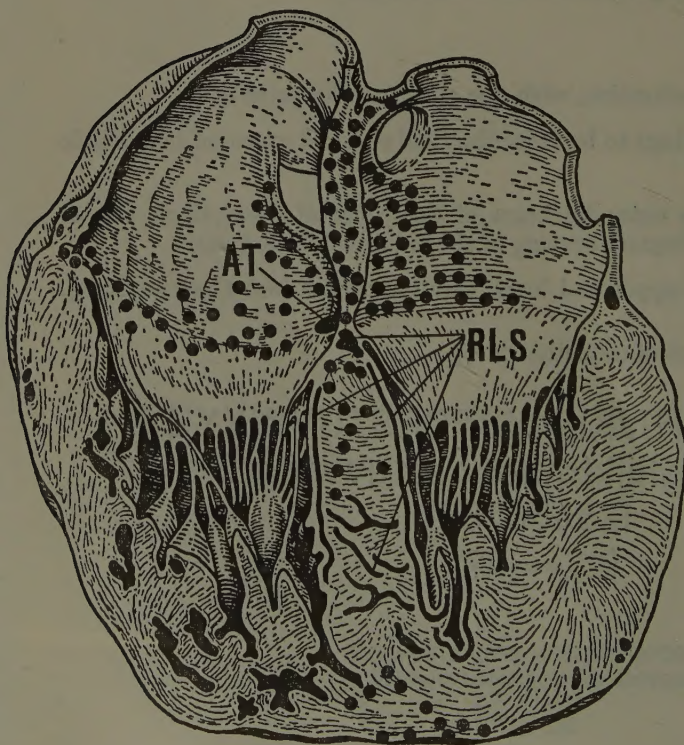
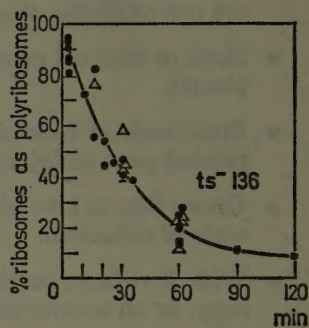
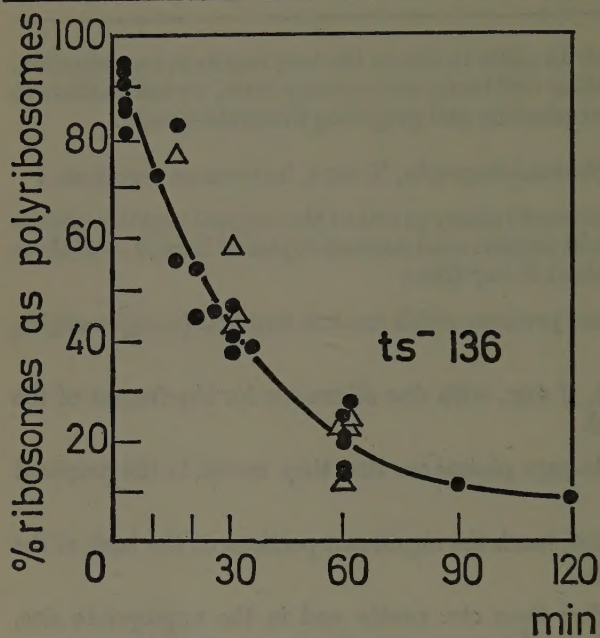
Important points to note: thickness of lines, size of inscriptions, size of measuring points, adequate spacing of shaded and dotted areas.

Words should be in upper and lower case characters (not block capitals).

Example showing the effect of reduction $\times \frac{1}{2}$.

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyzß
1234567890
(!,:''+=_x?%)

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyzß
1234567890
(!,:''+=_x?%)



Examples showing the effect of reduction $\times \frac{1}{2}$